OKLAHOMA
AGRICULTURAL AND MECHANICAL COLLEGE
AGRICULTURAL EXPERIMENT STATION
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FARM PROFITS

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INTRODUCTORY NOTE

What follows is a brief discussion of what seems to me to be some of the most urgent of the present agricultural problems. No attempt has been made to cover all of our problems. There are many others that might be discussed, such as crop adaptation, cultural methods, our horticultural industry, rural life and social condition, etc. These are all important but I believe that more depends upon the topics I have attempted to discuss briefly than upon any other group of topics that might be selected. The topics discussed in this circular are:

1. Our Beef Cattle Industry.
2. The Use of Good Seed.
3. Conservation of Water in the Soil.
4. Per Acre Yields and Profits.
5. Marketing Farm Products.
6. Feeding the Family.

Farm Profits

OUR BEEF CATTLE INDUSTRY

According to a market report put out recently by John Clay and Company, the prime Illinois fed yearlings brought $14.75 at Chicago. In this report it is stated that numerous lots of plain and short fed steers brought $7.00. The bulk of the steers sold from $7.50 to $9.25. Subtracting the average of about $8.50 from $14.75 leaves a difference of $6.25 in price.

This brings out one of the greatest weaknesses in the livestock industry for the entire country. The profits in the livestock business are dependent upon the cost of production of the animal and the selling price. To produce a good animal costs no more, in fact it costs less than it does to produce a scrub. It costs less for the reason that the well-bred animal responds more readily, grows off more rapidly with proper care than does the scrub. There is a saving then in the production on the farm by having high grade or pure-bred animals. Then when we come to sell there is always a wide margin between the price obtained for a high grade or pure-bred feeder or market animal and the scrub. In this connection I am thinking of them as being sold as feeders by the farmers. Or if he feeds them out and sells them he gets more for the feed that he puts into the high grade or pure-bred than for what he puts into the scrub, because it responds more readily to feed and because he gets so much better price for the high grade steer. Facts such as these have been known for a long time.

The Oklahoma Agricultural Experiment Station is carrying on an expermient or demonstration along this line at the present time to determine what it costs to raise a calf, to feed them (one a scrub and the other a high grade), what the difference in profits is at the beginning of the feeder time, what the difference in profit is after they have been fattened.

According to a map that was put out by the United States Department of Agriculture recently, 34.7 percent of the land in Oklahoma is in cultivated crops. This means that approximately two-thirds of our land is available for pasture, and this brings up another important point in connection with our livestock. This is that we can produce beef cheaper on grass than we can in any other way. It behooves us then to take care of the two-thirds of our land that is in pasture so as to utilize it to the best advantage. It has been shown by experiments conducted by the United States Department of Agriculture and a number of the Agricultural Experiment Stations that the carrying capacity of pastures can be increased quite appreciably by proper methods of pasturing. We are in the practice of turning our livestock into the pasture as soon as the grass begins to come in the spring, not allowing it to get a start. We keep it overstocked and eaten down and the grass does not have a chance to form seed or to store nutrients in the roots. As a result the grass does not have anything in the roots to stimulate it in the

early spring so as to cause it to grow rapidly. There is no new grass to come since no seed has ripened. In a short time weeds come since there is no grass to keep them down. These weeds multiply because the cattle do not eat them, they re-seed themselvs, they choke the grass and take the water that the grass should have in order for it to grow.

If we expect to rejuvenate our pastures, because that is what we must do, it will be necessary for us to do differently from what we have been doing. In the first place, the cattle should not be turned on the pasture so early in the spring before the grass gets a start. The number of cattle should be in proportion to the carrying capacity so that the grass will not be eaten down so as to prevent its storing nutrients in the roots in the growing season and preventing its re-seeding. Where it is possible to do so weeds should be mowed at the time of the year such as will prevent their re-seeding themselves.

Probably the most effective way of increasing the carrying capacity of our pasture is to practice pasture rotation. The simplest type of pasture rotation is to divide the pasture into two parts. The cattle graze on one part during the early part of the year after it is well up and on the other part the latter part of the year. Keeping the cattle off of the first part the latter part of the year allows the grass to come, re-seeds itself, stores nutrients in the roots, and as a result becomes more thrifty the next year. In the course of two or three years you have a pasture that has a much larger carrying capacity. A still more effective method is to have the pasture divided into three parts and rotate, grazing from one to the other. These are the simplest and most inexpensive methods of pasture treatment. In some of the older countries methods of cultivating and fertilizing pastures have been practiced.

The proper care of pastures is one of the things that we will have to come to in this state in providing an ample supply of feed for our livestock. We will never have a thriving livestock industry so long as we have to sell our stock on a market such as we had in the summer of 1923. It will be recalled that the summer was very dry, pastures were burned and feed crops were very poor. As a result farmers had to sell the greater part of their cattle in a condition that was poor at prices that were bankrupting. Things of this kind discourage farmers and prevent their going into the stock business. If their pastures had not been in such poor condition they would have had a greater carrying capacity and could have kept the cattle a much longer time. We will have to see to it that we have plenty of feed other than pasture in order to carry our cattle through the winter, especially in dry years such as 1923. Oklahoma has fewer silos than most of the other states. Kansas has about nine times as many silos as Oklahoma per farm. The silo has many advantages. The Kansas Agricultural Experiment Station has shown that the feeding value per acre of grain sorghum when put into silage is two and a half times as great as it is when it is fed in the form of stover. About two-thirds of the feed value of corn is in the ear, the other part in the leaves and stalk. These facts show that by putting our grain sorghum and corn into silos we multiply our feeding value very greatly. The silo

would be very valuable in this state not only on account of the facts just cited but also on account of the fact that the corn probably could be saved when it begins to burn by cutting it and putting it into silos. We can put up feeds in this way more compactly than can be done in any other way.

Silage has a stimulating effect, a kind of tonic effect on the animal during the winter time when there are no green feeds. I believe that if we are to have a livestock industry such as we should have it will be necessary for us to have a greater use of silos. Heretofore the difficulty in this state has been that the proper kind has not been used and in many cases they have not been filled properly.

The College is preparing a bulletin on the construction and use of silos. The size of the silo should be adjusted to the number of animals that are to be fed. This is the thing that has not been done in many cases in the past.

In addition to pastures and the use of silage care should be exercised to be sure that other kinds of feed are provided in proportion to the number of animals that are on the farm. In this connection it is worth while to note that in many cases the number of animals on the farm is too many for the carrying capacity of the farm and in other cases they are too few. Having the number of animals that should be on the farm and reducing it to the animal unit basis, say a certain number of sheep are equal to one head of cattle, etc., it is possible to calculate the number of acres that should be planted in feed stuffs other than pasture and silage in order to care for the cattle.

Calves should never be allowed to get poor. They should be fed from the start so as to keep them in good growing condition and thrifty because it is from the young stock that most money is made. I think here is where we make a serious mistake in this state. We do not realize that a young animal needs a lot of protein in its ration and a lot of mineral matter and that it should be kept in a thrifty, growing condition if we expect to make the most money out of it.

It should be added here that in most cases we do not realize that in order to have a thrifty calf to begin with the mother must be fed properly. She should have a sufficient quantity of protein in her ration and hay to provide mineral matter necessary for the production of a thrifty calf. Keeping the breeding stock in a thrifty condition gives us not only a better lot of calves to begin with but a larger number of calves per given number of cows, which is an important factor in profits.

We have not come as yet to be a feeder state in any large sense. I feel that we should concentrate on those factors that enter into the cost of production of feeders. It may be that later on we will become a larger feeder state.

I have tried to enumerate some of the factors that enter into the cost of production of feeders. These are: the quality of the calf, which is determined by its breeding, the proper use of our pastures, the proper use of silos, providing other feed in proportion to the number of head of livestock we have on the farm, keeping the mother in a thrifty condition so that she will produce a vigorous calf and also have a high production of calves, and feeding the calf so that it is always kept in a vigorous, growing condition.

THE USE OF GOOD SEED

The profit accruing from the use of good seed is ordinarily from ten to twenty percent more than from the use of average seed. This percentage is arrived at by a summary of many tests. The variation is very wide but this is about the average.

The Oklahoma Agricultural Experiment Station has been trying during the last two or three years to make available a supply of good seed for the farmers of the state. This work has been along two lines:

1. Arrangements have been made with farmers and state institutions to multiply seeds that have been bred by the Experiment Station, such as Oklahoma Triumph 44 Cotton, and also other seed such as Kanota Oats, that are known to be well adapted to Oklahoma.

2. Through the cooperation of the Oklahoma Experiment Station and the Oklahoma Crop Improvement Association, seeds have been inspected in the fields. This inspection is carried out to determine the source of the seed that were used and to be sure that the seed is free from disease and in no way contaminated.

Arrangements have been made to cooperate with the reformatory at Granite, the state penitentiary at McAlester, the home for feeble minded at Enid, and the Indian school at Chilocco for the growing of seed for distribution. In these two ways quite a definite start has been made toward getting good seed for the state.

According to a list that has been prepared by the Agronomy Department of the College, the following amounts of seed are available for distribution:

Triumph 44 Cotton	82,500 lbs.	Grain Sorghum seed	3,100 lbs.
Corn	2,100 lbs.	Oats (mainly Kanota)	54,225 lbs.

It will be noted that no wheat seed is included on this list but arrangements have been made to carry out multiplication work and inspection of wheat. We intend also to have barley planted for the production of seed for distribution. This work will be carried on as the other in cooperation with the farmers and various state institutions that have farms connected with them.

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CONSERVATION OF WATER IN THE SOIL

The cost of production of farm crops is determined by several factors but the two most important by far are the fertility of the soil and the amount of rainfall. For this reason we should concentrate our efforts on these two factors.

The acreage of cotton in this state the past year was about twelve percent more than it was the preceding year, yet the production for this past year was practically twice as great as it was the year before. The fertility of the soil and doubtless all other factors were the same for the two years, the only difference being the fact that we had more rain last year than we had the year before. Our profits per acre this past year were many times what they were for the preceding year. In fact, it was doubtful whether

we had any profits the preceding year because the cost of the seed, cultivation of the land and harvesting was probably more than the value of the yield per acre, to say nothing of the interest on the land value.

The Ohio Experiment Station carried out an experiment which shows that when the amount of rainfall during the months of June, July and August varied from 7 inches to 18 inches the yield of corn per acre varied from 16.67 bushels to 57.48 bushels per acre. It is not necessary to give other illustrations of the importance of rainfall in connection with crop yields. This is sufficient to indicate its importance, and it is especially important in Oklahoma.

We should, therefore, exercise every care to make the best use of the rainfall that we have. There are several ways of doing this.

1. Early plowing.
2. Terracing.
3. Increase in the fertility of the soil.
4. Keeping down weeds.
5. Mulching of the soil.
6. Development of plants that will stand dry weather.

There are many reasons why land should be plowed during the fall or winter. One of these reasons is that it allows greater storage of water in the soil during the winter time. Having greater storage will have its effect on crop production the coming year.

Ordinarily we think of terracing as serving only to protect the land from erosion. This is only one of the benefits of terracing. It prevents a large run-off of the water and a greater amount of it settles into the soil at the place, and therefore, does more good, especially when a light rain falls during the growing season.

It is not generally known that a poor soil requires more water per weight of dry matter produced in the form of crops than does a rich soil. However, this is a fact, and on account of it, increase in the fertility of the soil lowers the water requirements for the production of plants.

It is surprising the amount of water that is evaporated by transpiration from the leaves of the plants. This makes it necessary in order to conserve the water that is in the soil to keep down the weeds and grass and where there is a limited amount of water it would indicate that the distance between the rows and the separation of the plants in the row should be greater than where there is greater rainfall.

Early experiments lead to the conclusion that keeping a mulch on the soil conserved the moisture. These experiments lead to the conclusion that conserving by mulching was in proportion to the depth of the mulch in cases where the mulch is not over three inches deep. It is a common belief that the soil should be kept well mulched in order to conserve the moisture. More recent experiments conducted at the Oklahoma and Kansas stations and at other stations have led the investigators to conclude that mulching by means of plowing does not conserve the moisture of the soil to any ap-

preciable extent. Yields of the grain sorghums at the Oklahoma station where the soil was kept free of weeds by means of hoeing are as great as where it was cultivated. The moisture in the first three feet of the soil is the same where the land is plowed or not plowed during the growing season. These results are in harmony with the experiments at other stations. All experiments along this line point to the importance of keeping the weeds and grass down and the benefits from plowing are due to keeping of the weeds down and to the aeration of the soil and the setting free of plant foods. It is taught that in climates such as ours the soil dries out on top when it is not plowed and forms a natural mulch which prevents evaporation from the surface. I think we are safe in saying that further work will have to be done before it can be decided as to whether or not mulching is desirable. Certainly keeping the weeds down by hoeing is not the most economical method of cultivation. Plowing shallow two or three times, or enough to keep the weeds killed, seems to be the most economical method of cultivation. The experiments along this line so far have been carried out with corn and the grain sorghums. The Oklahoma Station started an experiment last year with cotton to try to determine what is the most economical method of cultivating cotton in different sections of the state.

Different plants require different amounts of water in order to produce a unit quantity of dry matter. That is, the same amount of water must go through the plant and be breathed off by the leaves in order that the plant may produce a unit increase in the weight of its dry matter. Different plants vary markedly in this respect. The class of plants that require the least amount of water is the grain sorghums. Corn requires more, wheat still more, barley still more, and oats yet a greater amount. This in itself indicates that we should plant crops on dry land that require a small amount of water for their production. Corn requires a fairly large amount of water and the largest amount is needed at the time of the year in this state when we are likely to have the least amount.

One of the most important things for us to do is to pay special attention to all of the factors that influence the conservation of water in the soil.

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PER ACRE YIELDS AND PROFITS

I was talking with a man a few days ago who argued that we did not want to increase our yields by intensive cultivation, but instead we should by means of farm machinery increase the yields per man. One difficulty with this is that nearly all the fertile land that is now available has been put under cultivation. Our population is growing rapidly and it will be necessary for us to get a larger yield per acre of the feed and fiber crops if we expect to take care of our needs. However, this is not the point that I want to discuss in this paper.

With a given kind of machinery and a given amount of work in the form of the preparation of the seed bed and cultivation, the two most important factors that determine the yields per acre are the rainfall, or the way the water is conserved, and the fertility of the soil. I have already discussed

the conservation of moisture in the soil. The other most important factor is that of fertility.

In Oklahoma this is one of our major agricultural problems. Ours is one of the youngest states, yet our per acre yields have been, and are, on the decline. In a cotton contest that was conducted at Ardmore this year one of the contestants produced six and a fraction bales of cotton on five acres. This was the highest yield. The lowest was a little more than three bales. In all probability, since they were in the contest, they both did the same amount of work in the way of preparing the seed bed and the cultivation of the cotton. They were in the same neighborhood, therefore, the rainfall was a constant factor. The difference was a difference in the fertility of the soil.

Anything above the cost of production is, of course, profits. Our profits increase rapidly, after the cost of production has been exceeded, with increase of yields per acre. With high-priced land, high-priced labor, high-priced machinery it is more important now than it used to be for us to get a greater return per acre in the way of yields. The question is, How can this be done? I have pointed out two factors that enter into it. One is the use of good seed and the other is the conservation of our soil moisture. The third probably most important factor yet mentioned is that of the fertility of the soil. The fertility is lost in three different ways, first, by erosion; second, by percolation, or the washing away by water of the plant foods in the soil; third, the taking away of plant foods in the form of crops grown on the soil.

What shall we do to stop this loss? I have advocated plowing land in the fall and winter, but this should not be done where rolling land is plowed shallow. The shallow plowed land soon absorbs all the water that it can take up, then when the run-off begins the land washes much more easily. Where land is plowed shallow in the fall, is very rolling, and is not terraced, it is a bad practice. Each farmer will have to exercise his own judgment in such cases. Our first step toward preventing erosion is terracing the land. Terracing and keeping the land covered as much of the time as possible will prevent erosion to a very large extent. Our second great loss is through percolation, or the washing out of the plant foods by means of water. After land is terraced plant foods will not be lost entirely by percolation. They will, in most instances, be concentrated near the terraces. Anything that will increase the water holding capacity of the soil will tend to prevent percolation. Plowing in the fall is one of the things that will increase the water holding capacity. Anything that will tend to make the soil absorb the plant foods more strongly or to a greater extent will tend to prevent percolation, and here is where our organic matter comes in. What we mean by absorption is that the plant foods are held in contact with the surface. The more surface exposed the greater is the absorption. Organic matter increases the amount of surface that is exposed by the soil. In the first place, it causes the soil to be more pulverulent, exposing a larger surface, then there is also the surface of the organic matter. Again, the organic matter increases the water holding power of the soil and this will tend to prevent percolation.

The third great loss of plant food in our soils is that it is taken away in the form of crops. Seventy percent of the loss by way of crops could be returned if all of the manure formed by the feeding of these crops was returned to the soil. Under our conditions it will not be possible to return anything like this percent. We should have some system by which we can retain the plant nutrients that we now have in the soil and add to them. The first step in this direction is terracing and contour plowing. The second step is to add organic matter to the soil. The third is the addition of limestone where the soil is acid, due to a deficiency of lime. Some soils will need the addition of phosphorus in the form of acid phosphate or raw phosphate and the addition of nitrogen by means of growing legumes in the rotation. In most of our soils there is considerable potassium, enough to last for a long time for the general run of crops. It is a question of the addition of organic matter so as to make it available.

The policy of all of the agricultural agencies of the state should be to look upon the question of soil fertility from a long term standpoint. The indiscriminate use of commercial fertilizers is, at best, only a temporary and palliative measure. We will have to use limestone on some of our soils. In certain cases we will need to add phosphorus by means of fertilizers because this is the only way it can be added. It might be advisable in certain cases to use nitrates. One of the big jobs of the Oklahoma Agricultural Experiment Station is to find out what is the best method to follow in improving the soils in different sections of the state. Independent farmers can do quite a bit of this for themselves, if they are of an experimental turn of mind.

The Extension Division of the College is encouraging county agents in the terracing of land. We will have to give more attention to rotation and the growing of legumes in rotation so as to add organic matter and nitrogen to the soil. We should encourage the care of barnyard manure and its return to the soil. When this is done and crop rotation is practiced we will probably have to buy our limestone and phosphorus to add to the soil.

The two most important factors in crop yields are rainfall and soil fertility. It is easier for us to regulate or control the soil fertility than it is for us to conserve the moisture in the soil, but both should be done as much as possible.

MARKETING FARM PRODUCTS

Farm profits depend upon two things. One is the cost of production. I have discussed some of the factors that affect the cost of production. The other is the cost of marketing or efficiency in marketing.

Until recent years the agricultural colleges and farmers have given very little attention to the question of the marketing of farm products, and yet this is of importance from two standpoints: First, the economical side, and, second, the educational side.

A great number of our farm products are ready to be marketed during a period of two or three months of each year. They are consumed over a

period of twelve months. Somebody has to pay the carrying charge on these products for nine months. In cases where they are sold through independent buyers and not through farmers' cooperative organizations the speculator pays all of the carrying charge and takes all of the risk. I think it but natural that the independent buyer on an average would buy at such a price as to be doubly sure that he is not going to lose. This double safety is paid for by the farmer. Another way in which the old system of selling farm products is objectionable is that they usually passed through several hands before they are sent to the manufacturer or consumer. Of course, we have to have middle men but we want them to be just as few as possible. The more roundabout the road is from the producer to the consumer the more inefficient is the system. This is one of the chief objections to the old method of selling farm products. Another objection is that in many cases the price paid for the product is not in proportion to its quality. It is a well known fact that where cotton is sold in the seed, and in some cases where it is sold in the lint, there is a flat price paid. The farmer who produces cotton of high quality is not paid for his effort. There is no inducement for him to raise a high quality product. Our marketing system should be such that our farm products would move as directly as possible from the producer to the manufacturer or to the consumer, and it should be such that the producer is paid in proportion to the quality of his product. These are two points wherein the old system of selling is deficient. These are two of the strongest arguments in favor of cooperative marketing.

Cooperative marketing has an educational value. The very fact that the farmers are joined together in a common interest causes them to come together. When they get together they discuss not only the question of marketing their products but they will naturally discuss questions of economy in production and other problems that affect their farm life. The more farmers can be brought together for the discussion of their common problems the better it is for them. This is true of all groups of people or professions that have a common interest. Again, if the farmer knows that he is going to be paid for his product in proportion to its quality he will begin to study how to produce high quality, and this is of tremendous educational value.

Where the farmer is not interested in his product after he sells it on the street he will naturally take very little interest in the economics of selling. He will devote very little attention to markets. But if he is interested in his products until they get to the consumer he will be more interested in the value of his products and in the amount of them that are being produced as a world supply. In short, he will be interested in the whole system by which his product passes from his hands into the hands of the consumer. This will be of great educational value. Studying the route his products take from his hands to that of the consumer will tend to cause him to adjust his production to the world's needs. He will come to realize that somebody has to pay the carrying charge on his products for nine months and that if he himself can pay this charge he has saved that much. I think this would naturally lead him to conclude that if he would produce as much of his

living as possible on the farm he would be in a better position to pay this charge. The farmer who produces his own breadstuffs, his meat, his milk, his eggs, fruit and vegetables does not have to put out much money for the living of his family. He is in a position to a greater extent than he would be otherwise to sell his product as it is needed by the manufacturer or consumer. If cooperative marketing is to go forward as it should farmers will have to come to realize that it has advantages besides those that might be classed as economical.

If the number of independent buyers is reduced and if the number of middlemen is reduced independent buying will become more efficient. The time might come when it would be hard for cooperative associations to show a farmer that they could sell his product for a greater price than the independent buyer could. The farmer should ask himself the question, What would the price have been had the cooperative association not existed? The presence of the cooperative association creates competition and, therefore, tends toward efficiency in marketing farm products. For that reason farmers should be loyal to their marketing associations even though it could not be shown that they saved their money by marketing their products through it. If a time should come when there is nothing saved to the farmer by selling his crops cooperatively, still I would argue that cooperative marketing associations are of value because they tend to increase competition in moving farm products to the consumer, and also that they are of value from an educational standpoint, for the reason that they cause the farmer to study the cost of production and world conditions that control the price that is paid for his product.

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FEEDING THE FAMILY

You will immediately say, What has this to do with farm profits? In case of work stock we all recognize that in order to get the greatest service out of them it is necessary to keep them in good physical condition. We all realize also that in order to produce a thrifty offspring of any kind it is necessary to take proper care of and to feed the mother properly. I have already advocated in the first article of this series the feeding of beef calves so as to keep them in a thrifty, growing condition. We should apply essentially the same principles to the feeding of the family.

There is nothing else that is so conducive to happiness and to giving individuals the proper spirit as the right kind of diet, and yet it seems to me that sometimes we consider the proper feeding of the family of very little importance. Children, even before they are born, need large quantities of protein and mineral matter and vitamines in their diet. This means that the mother should have the right kind of diet before and after the child is born. The proportion of protein and mineral matter needed in the diet decreases with the increase of the age of the child.

You will say, Where do we get the necessary constituents of the diet? The best source of protein for children is milk and eggs. The only reason that I would place milk in preference to meat in the food of children is that

the protein that is in milk is in a divided form and therefore more easily digested. The same applies to eggs if properly cooked. After children are four or five years of age the milk in the diet could be replaced to some extent by meat.

The protein in milk, eggs and meat are of higher quality as they contain more of the essential amino acids than do proteins from any other source. On that account, in order to get the necessary amount of the amino acids it requires less of them than it does of proteins from other sources. Where do the children get the mineral matter that they need in the diet? Milk is one of the best sources of the needed mineral matter. Vegetables and fruit also supply mineral matter.

Recent investigations in nutrition have shown two things very clearly. One is the superior quality of proteins from animal sources and the other is the need of the so-called food accessories of vitamines. Vitamines are found in large quantities in eggs, milk, vegetables, fruits, and to quite an appreciable extent in meat. It is not possible for a family that does not have these things in its diet to be properly nourished, and yet we have a large number of families in this state that do not plan deliberately to have these things. We advocate good cows, good hens, and good gardens, yet the poor cow is better than no cow at all, the poor hen is better than no hen at all, and a scant garden is better than no garden at all. I am thinking of these things not from the economical standpoint but from the standpoint of the health and happiness of the family. The family that is healthy and happy and full of vigor will be better producers on the farm than will one that is not healthy and happy. I would not say that happiness depends entirely upon the proper diet nor would I say that vigor depends entirely upon proper diet, but I would say that it depends very largely upon it.

I think landlords would find it to their advantage financially, if for no other reason, if they would provide means whereby the tenant could keep a cow, or cows, keep some hens, have a garden and raise his own meat. This would be to the advantage of the tenant not only from the standpoint of health and happiness but also from a financial standpoint. When he has to go to the store and buy bacon, condensed milk, corn meal, flour and sugar it is not only expensive but it does not provide him with many things that he needs in his diet. This is especially true for his children. After all, our chief concern should be the proper bringing up of the children. If they are fed properly they will be stronger and healthier and will do better in their school work. Practically all I have said on this topic up to now is in regard to the food of the children and the food of the mother, but in order for the father to be the best citizen and be the most productive on his farm it is very important that he have the things that he needs in his diet and the right quantity.

I think we would take a big step forward in this state if not only the landlords would see the importance of these things in their own households but more especially if they would provide means whereby their tenants could feed themselves properly. This is especially applicable to this state because more than fifty percent of our farmers are tenants.